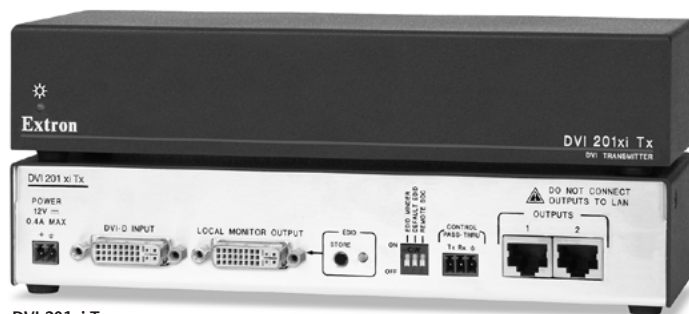


DVI Twisted Pair Transmitter

DVI 201xi Tx

- Transmits single link DVI/HDMI and RS-232 over two CAT 5-type cables
- Sends 720p, 1080i, and XGA signals over 200 ft (60 m), 1080p/60 and 1920x1200 over 100 ft (30 m)
- EDID Minder
- DVI input loop-through
- Supports DDC and HDCP
- Automatic input equalization
- Remote powering of receiver
- Bi-directional RS-232/IR pass-through
- Rack Mountable



DVI 201xi Tx
Transmitter

The Extron DVI 201xi Tx is a twisted pair transmitter that works together with a DVI 201 twisted pair receiver to send DVI or HDMI signals over distances of 200 feet or more using two standard CAT 5-type cables. The DVI 201xi Tx is ideal for professional and residential applications that utilize fully digital, long distance transmission of DVI or HDMI signals.



Extron® Electronics

www.extron.com

DESCRIPTION

The Extron **DVI 201xi Tx** is a twisted pair transmitter that enables DVI or HDMI signals to be carried over distances significantly greater than the specified 5 meter (15 foot) limitation for standard DVI cables. Linked together using two economical and integration friendly CAT 5, CAT 5e, CAT 6, or CAT 7 cables, the DVI 201xi Tx transmitter and a DVI 201 or DVI 201 A D Twisted Pair Receiver work together to send single link DVI-D or HDMI signals over 200 feet (60 meters) for HDTV and XGA (1024x768). The DVI 201xi Tx includes EDID Minder, automatic input equalization, and rack mount capability, all designed to help optimize system integration for DVI signal transmission.

The DVI 201xi Tx features EDID Minder, which automatically manages EDID - Extended Display Identification Data communication between the input source and the display, ensuring the source powers up properly and reliably delivers content to the display. The DVI 201xi Tx also supports the long distance transmission of HDTV signals with HDCP - High-bandwidth Digital Content Protection for copy protection of digital television broadcasts and high resolution digital video output from DTV tuners and DVRs, and Blu-ray Disc players. The DVI 201xi Tx is fully compatible with HDMI signals when used with the appropriate adapters from Extron.

Several features facilitate convenient, streamlined system integration. Automatic input equalization reduces the need for additional signal conditioning equipment by compensating for signal loss when using long input cable assemblies. The DVI 201xi Tx includes a DVI loop-through to support monitoring on a local display device. RS-232 or IR signals from a third-party control system can also be transmitted over the same cabling as the DVI signals, providing remote control of a projector or flat-panel display. Furthermore, a DVI 201 or DVI 201 A D receiver attached to the DVI 201xi Tx can be remotely powered over this cabling, so that external power is necessary only at the transmitter location.

The DVI 201xi Tx transmitter is housed in a rack-mountable 1U, half rack width metal enclosure. It can be matched with the DVI 201 or DVI 201 A D Decora® Twisted Pair Receiver to suit the installation requirements of a specific application.



DVID SL Pro Series
Single Link DVI-D Male to Male Cables

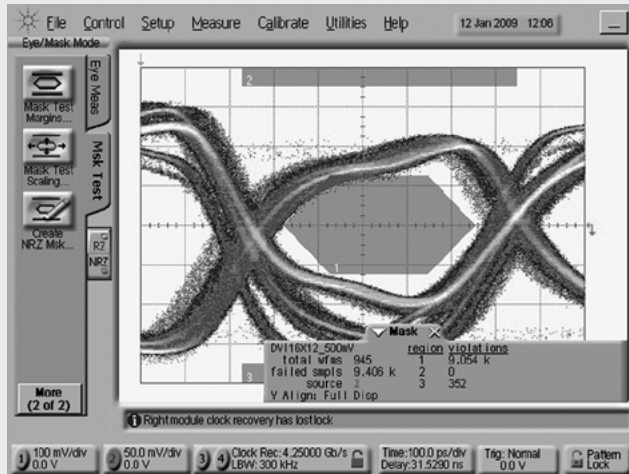
FEATURES

- **Transmits single link DVI-D/HDMI and RS-232 signals over two CAT 5-type cables** – Standard UTP/STP cables provide an economical, easily installed cable solution.
- **Sends 720p, 1080i, and XGA (1024x768) signals over 200 feet (60 meters), 1080p/60 and 1920x1200 signals over 100 feet (30 meters)** – Utilization of STP - Shielded Twisted Pair cabling provides added protection from outside interference and increases overall signal transmission distances.
- **DVI input loop-through** – The DVI 201xi Tx features a DVI-D output for connection to a local monitor.
- **Supports DDC and HDCP** – The DVI 201xi Tx fully supports long distance transmission of DDC and HDCP signals.
- **DDC routing to local or remote display** – At the DVI 201xi Tx, the DDC or HDCP signal is directed to either the local display or the remote display, depending on which is more critical in receiving the signal.
- **EDID Minder** – A selectable feature that enables automatic and continuous EDID management between the input source and the display. EDID Minder ensures that the source powers up properly and reliably outputs content to the display.
- **Automatic input equalization** – Actively conditions incoming DVI signals to compensate for signal loss and timing errors when using long DVI cables, low quality DVI cables, and source devices with poor DVI signal output.
- **Remote powering of receiver** – Only one power supply is necessary to power both devices.
- **Bi-directional RS-232/IR pass-through** – Bi-directional RS-232 control or IR signals can be transmitted alongside the DVI signals, so that the remote display can be controlled without the need for additional cabling.
- **LED indicator for source signal presence and power**
- **Fully supports HDMI signals when used with optional Extron HDMI-DVI adapters** – Supports CEC Consumer Electronics Control signal transmission.
- **Compatible with DVI 201 and DVI 201 A D Decora receiver** – Enables mixing and matching with desktop and wallplate receivers to meet application requirements.
- **Rack-mountable 1U, half rack width metal enclosure**
- **External universal power supply included** – Provides worldwide power compatibility.

Although DVI signals are digital in nature, they are subject to loss when transmitted on standard DVI cables, due to the inherent properties of the cable and the connectors. The proper “shape” of the three TMDS channels – also known as the “eye” pattern, as well as their timing to the clock channel, are critical in ensuring proper DVI image display. Losses in these channels will result in “sparkles” on-screen, or a complete loss of the image. They are attributable to long cable lengths, poor quality cables and terminations, and even certain source devices which output substandard DVI signals.

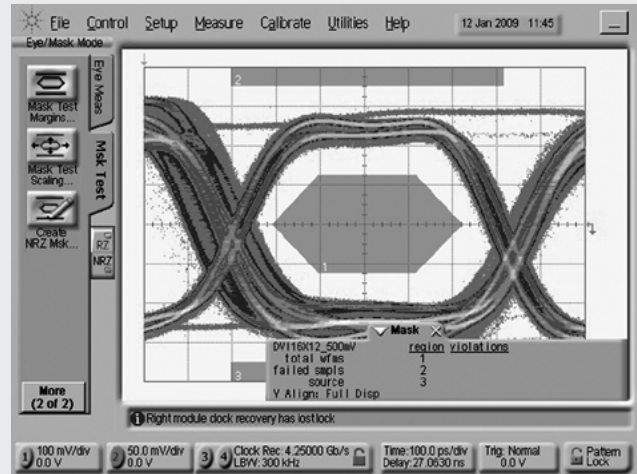
The DVI 201xi Tx features **Automatic Input Equalization**, which actively conditions incoming DVI signals, applying equalization to help reshape and restore TMDS channels to proper levels. The clock channel is also regenerated to provide proper TMDS channel alignment. As shown below, a compromised source-generated DVI signal is significantly improved when passed through the DVI 201xi Tx and subsequently transmitted to a DVI 201 Rx Twisted Pair Receiver. Automatic Input Equalization reshapes and restores the “eye” patterns to ensure high quality images at the display.

WITHOUT AUTOMATIC INPUT EQUALIZATION



Direct DVI output from a source device at 1600 x1200. Signal quality is poor, and the “eye” pattern is significantly distorted.

WITH AUTOMATIC INPUT EQUALIZATION



The same DVI output is transmitted 100 ft (30 m) over CAT 5 cable using the DVI 201xi Tx and DVI 201 Rx. The “eye” pattern is fully restored.

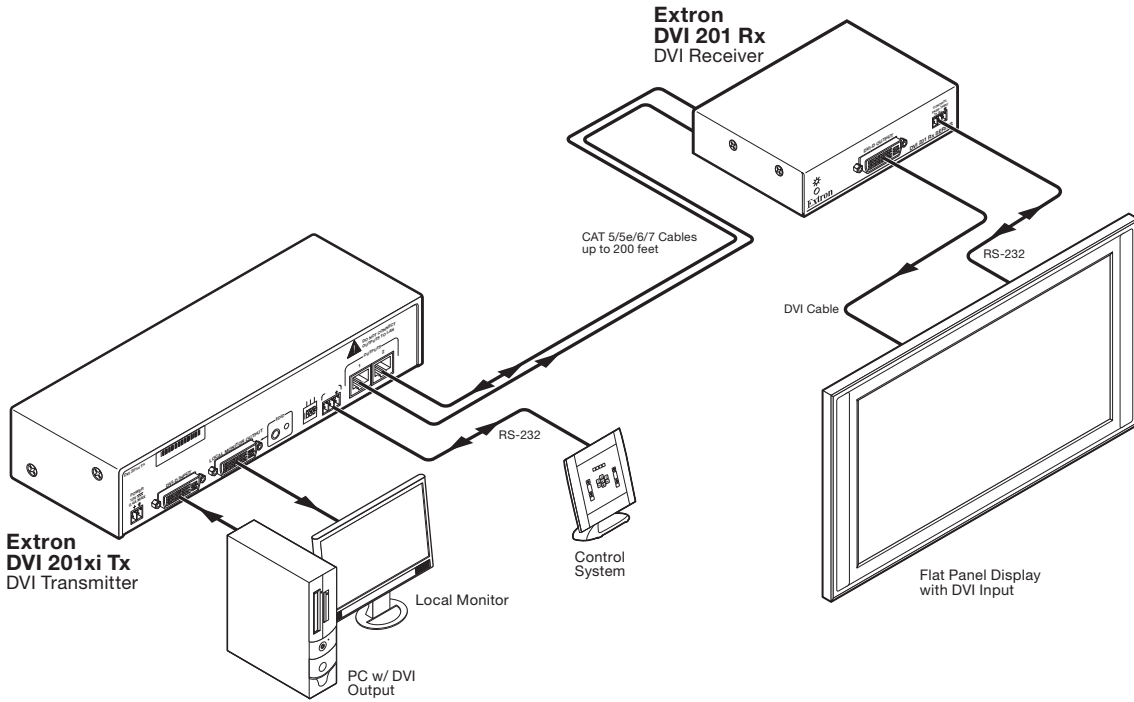
SPECIFICATIONS

VIDEO	
Maximum data rate	10 Gbps (3.3 Gbps per color)
Maximum pixel clock	165 MHz
Resolution range	Up to 1920x1200 @ 60 Hz
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI 1.2
VIDEO INPUT AND LOOP THROUGH — TRANSMITTER	
Number/signal type	1 single link DVI-D input
Connectors	1 single link DVI-D local loop-through 2 DVI-I female (1 for input, 1 for loop-through)
INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER	
Connectors	(2) RJ-45 per unit for 2 CAT 5/5e/6/7 UTP or STP (shielded twisted pair) cables connecting the transmitter and receiver
Signal transmission distance	
1080p or 1900x1200 @ 60 Hz	
CAT 5/5e/6/7 STP	
(shielded twisted pair) cable	Up to 125' (38 m)
CAT 5/5e/6 UTP cable	100' (30 m)
NOTE:	The transmission distance varies greatly depending on the signal resolution and on the type of cable, graphics card, and display used in the system.
CONTROL/REMOTE — EXTERNAL DEVICE (PASS-THROUGH)	
Serial control port input	RS-232 via (1) 3.5 mm, 3 pole captive screw connector

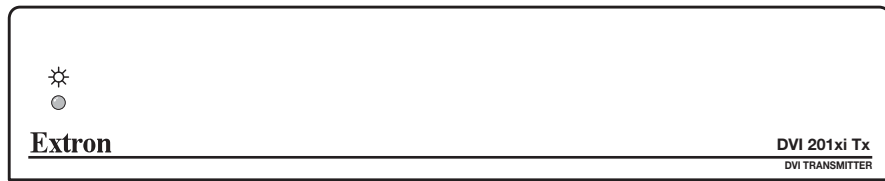
GENERAL		
External power supply	100 VAC to 240 VAC, 50-60 Hz, 6 W max., external; to 12 VDC, 2 A, regulated	
Power input requirements	12 VDC, 0.4 A for both transmitter and receiver	
Temperature/humidity	Storage: -40 to +158°F (-40 to +70°C) / 10% to 90%, noncondensing Operating: +32 to +122°F (0 to +50°C) / 10% to 90%, noncondensing	
Cooling	Convection, no vents	
Mounting		
Rack mount	Yes, with optional 1U, rack shelf	
Enclosure type	Metal	
Enclosure dimensions	1.75" H x 8.75" W x 3.0" D (1U high, half rack wide) (4.4 cm H x 22.2 cm W x 7.6 cm D) (Depth excludes connectors.)	
Product weight	0.6 lbs (0.3 kg)	
Shipping weight	2 lbs (1 kg)	
Vibration	ISTA 1A in carton (International Safe Transit Association)	
Regulatory compliance		
Safety	CE, CUL, UL	
EMI/EMC	CE, C-tick, FCC Class A**, ICES, VCCI	
MTBF	30,000 hours	
Warranty	3 years parts and labor	
NOTE:	**FCC testing is conducted with STP (shielded twisted pair) cable.	
NOTE:	All nominal levels are at ±10%.	
Model	Version Description	Part number
DVI 201xi Tx	DVI Twisted Pair Transmitter	60-1013-12
DVI 201 Rx	Receiver	60-734-13
DVI 201 A D Rx	Receiver - Black	60-865-22
DVI 201 A D Rx	Receiver - White	60-865-23

Specifications are subject to change without notice.

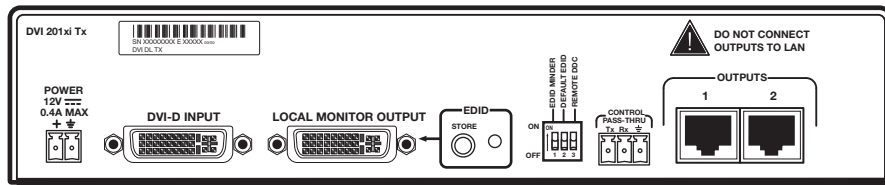
APPLICATION DIAGRAM



PANEL DRAWINGS



DVI 201xi Tx Front



DVI 201xi Tx Back



Extron USA - West
Headquarters
+800.633.9876
Inside USA / Canada Only
+1.714.491.1500
+1.714.491.1517 FAX

Extron USA - East
+800.633.9876
Inside USA / Canada Only
+1.919.863.1794
+1.919.863.1797 FAX

Extron EMEA
+800.3987.6673
Inside Europe Only
+31.33.453.4040
+31.33.453.4050 FAX

Extron Asia
+800.7339.8766
Inside Asia Only
+65.6383.4400
+65.6383.4664 FAX

Extron Japan
+81.3.3511.7655
+81.3.3511.7656 FAX

Extron China
+400.883.1568
Inside China Only
+86.21.3760.1568
+86.21.3760.1566 FAX

Extron Middle East
+971.4.2991800
+971.4.2991880 FAX